DAVID Y. IGE Governor

JOSH GREEN Lt. Governor



PHYLLIS SHIMABUKURO-GEISER

Chairperson, Board of Agriculture

MORRIS ATTA
Deputy to the Chairperson

State of Hawaii **DEPARTMENT OF AGRICULTURE**

1428 South King Street Honolulu, Hawaii 96814-2512 Phone: (808) 973-9600 FAX: (808) 973-9613

TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE HOUSE COMMITTEE ON AGRICULTURE

MARCH 16, 2022 10:00 A.M. CONFERENCE ROOM 325 and VIA VIDEOCONFERENCE

SENATE BILL NO. 2480, SD2
RELATING TO THE WAHIAWA IRRIGATION SYSTEM

Chairpersons Hashem and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill 2480, SD 2. This bill requires the Office of the Governor to negotiate the State's fee simple acquisition of the Wahiawa Irrigation System on the Island of Oahu. It also authorizes and appropriates moneys for the Department of Agriculture ("Department"), Agribusiness Development Corporation ("ADC"), and Department of Land and Natural Resources ("DLNR") to purchase, repair, and maintain the Wahiawa Irrigation Systems and an associated spillway. The Department supports the intent this measure, however, has strong concerns and offers the following comments.

The Wahiawa Irrigation Systems is an extremely complex system that serves numerous purposes that have evolved over time. The Waialua Sugar Company originally built the system to serve as a reliable water source and provide water to its sugar cane operations in central Oahu, Waialua, and Haleiwa. With the demise of the monocrop sugar industry, the system continues to provide irrigation to farmers in Wahiawa, Waialua, and Haleiwa on a significantly reduced scale while now serving more as a popular venue for recreational activities, public safety resource (flood control, wildfire mitigation), and public infrastructure asset (wastewater treatment, potential hydropower development). DLNR maintains conservation and recreational interests associated with the system and ADC is acquiring a portion of the irrigation ditch system that serves agricultural lands in the vicinity of the system under their management. The Department currently does not have any lands under its jurisdiction that is served by the system. The Department is concerned that despite lacking land resources associated with the system, the measure requires it to acquire and repair the dam and spillway and does not provide operational funding to ensure that ongoing maintenance, repairs, and operations can be performed. The Department does not have the financial or human resources to operate and maintain this high hazard



structure. The annual dam safety fee alone is over \$10,000 per year, and the annual maintenance costs may be six or seven figures per year. This measure provides annual appropriations for both ADC and DLNR for operations and maintenance of their respective portions of the system.

The Department was not one of the purchasing agencies of the system in the original version of this measure. The agricultural component of this system used by ADC consists of only a small portion of the irrigation infrastructure downstream of the dam spillway. It is our understanding that this is the portion of the system that is intended for purchase and use by ADC. Contrary to prior statements that agricultural activities and local food production are the primary and overwhelming beneficiaries of the system, its current uses consist of a complex mix of important public benefits that include, submerged lands leasing, aquatic resources management and research, fishing, boating, and park recreational activity, flood control, wastewater management, wild fire suppression, and renewable energy development. Accordingly, the Department concurs with the ADC's prior testimony that "...acquisition of Lake Wilson and the irrigation system should be a policy decision made and coordinated by the Governor and Mayor to address and resolve these long-standing issues collectively." Any long-term decisions regarding the future of the system requires careful and collaborative deliberations among all affected entities.

The Department of Agriculture appreciates any effort to encourage the survival and use of legacy irrigation systems to grow diversified agriculture. We also recognize that this system has significant importance to the public for conservation, recreational, research, public safety, infrastructure, and other purposes. We also understand that costly, critical improvements must be timely made to satisfy dam safety regulations to cease the continuing imposition of fines. A holistic approach to management of this resource would be beneficial to all persons in the State.

Thank you for the opportunity to testify.

SB-2480-SD-2

Submitted on: 3/15/2022 10:22:48 AM

Testimony for AGR on 3/16/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Hawaii Department of Agriculture	Hawaii Department of Agriculture	Comments	Remotely Via Zoom

Comments:

Staff will be present via videoconference to answer questions.

EMPLOYEES' RETIREMENT SYSTEM
HAWAI'I EMPLOYER-UNION HEALTH BENEFITS TRUST FUND

OFFICE OF THE PUBLIC DEFENDER



STATE OF HAWAI'I
DEPARTMENT OF BUDGET AND FINANCE

P.O. BOX 150 HONOLULU. HAWAI'I 96810-0150 CRAIG K. HIRAI

GLORIA CHANG DEPUTY DIRECTOR

ADMINISTRATIVE AND RESEARCH OFFICE BUDGET, PROGRAM PLANNING AND MANAGEMENT DIVISION FINANCIAL ADMINISTRATION DIVISION OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY

TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEE ON AGRICULTURE
ON
SENATE BILL NO. 2480, S.D. 2

March 16, 2022 10:00 a.m. Room 325 and Videoconference

RELATING TO THE WAHIAWA IRRIGATION SYSTEM

The Department of Budget and Finance (B&F) offers comments on this bill.

Senate Bill No. 2480, S.D. 2: authorizes the Department of Agriculture (DOA), Department of Land and Natural Resources (DLNR), and the Agribusiness Development Corporation (ADC) to acquire the Wahiawa Irrigation System (WIS) on terms negotiated and agreed upon by the Office of the Governor and to purchase, repair, and maintain the associated spillway; appropriates \$26,000,000 in general funds for FY 23 for the DOA to repair, expand, and acquire a fee simple interest in the WIS spillway; appropriates \$800,000 in general funds for FY 23 for the ADC to manage and maintain its acquired portion of the WIS; and appropriates \$1,500,000 in general funds for FY 23 for the DLNR to manage and maintain its acquired portion of the WIS, including the creation of four full-time positions for this purpose.

B&F notes that, with respect to the general fund appropriations in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds

and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.

DAVID Y. IGE Governor JOSH GREEN Lt. Governor



STATE OF HAWAII AGRIBUSINESS DEVELOPMENT CORPORATION

235 S. Beretania Street, Room 205 Honolulu, HI 96813 Phone: (808) 586-0186 Fax: (808) 586-0189

TESTIMONY OF JAMES J. NAKATANI EXECUTIVE DIRECTOR AGRIBUSINESS DEVELOPMENT CORPORATION

BEFORE THE HOUSE COMMITTEE ON AGRICULTURE

Wednesday, March 16, 2022 10:00 a.m. Conference Room 325

SENATE BILL NO. 2480, SD2 RELATING TO THE WAHIAWA IRRIGATION SYSTEM

Chairperson Hashem and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill No. 2480, S.D. 2. The Agribusiness Development Corporation (ADC) supports S.B. 2480 S.D. 2, which authorizes the department of agriculture, department of land and natural resources, and agribusiness development corporation to acquire the Wahiawa irrigation system, on terms negotiated and agreed upon by the office of the governor, and to purchase, repair, and maintain the associated spillway.

Thank you for your consideration of our testimony.

DAVID Y. IGE GOVERNOR OF HAWAII





STATE OF HAWAII **DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

Testimony of **SUZANNE D. CASE** Chairperson

Before the House Committee on AGRICULTURE

Wednesday, March 16, 2022 10:00 AM State Capitol, Conference Room 325, Via Videoconference

In consideration of SENATE BILL 2480, SENATE DRAFT 2 RELATING TO THE WAHIAWA IRRIGATION SYSTEM

Senate Bill 2480, Senate Draft 2 proposes to require the Office of the Governor to negotiate the State's fee simple acquisition of the Wahiawa Irrigation System on the island of Oahu; and authorize and appropriate moneys for the Department of Agriculture (DOA), Agribusiness Development Corporation (ADC), and the Department of Land and Natural Resources (Department) to purchase, repair and maintain the Wahiawa Irrigation System and associated spillway. The Department offers the following comments on this measure.

While the Department appreciates that the measure provides \$1,500,000 to the Department to manage and maintain its portion of the irrigation system, including creating 4 full time equivalent (FTE) positions, the Department notes that there will be significant ongoing challenges to manage this area and that future recurring funding will be required. The Department already manages the approximately 66-acre Wahiawa State Freshwater Park adjacent to the subject parcels and estimates that it would be responsible for managing approximately 206.5 additional acres resulting from this acquisition. The Department understands that as many as 50 homeless people occupy various areas of the parcels and a commitment of substantial resources will be required to manage the area to provide clean, safe recreational opportunities to the public. In addition to addressing the homeless issue, the Department will need to manage the submerged land areas and approximately 20 miles of shoreline for public use by regularly removing trash, debris and other hazards, including aging Eucalyptus trees that abut the adjacent residential properties. Given the significant management responsibilities that will involve multiple divisions of the Department, 4 FTE positions may not be sufficient staff resources to adequately manage this area. Specifically, additional officers from the Department's Division of Conservation and Resources Enforcement will be required to respond to homeless and other enforcement issues.

SUZANNE D. CASE CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

> ROBERT K. MASUDA FIRST DEPUTY

M. KALEO MANUEL

AQUATIC RESOURCES AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS ENGINEERING

¹ The Department also understands that there are more homeless in the general vicinity that may migrate to the subject parcels once they become publicly accessible.

Additionally, the measure does not provide any funding for due diligence for the acquisition. Some of the items required would be a survey map and description, title reports for all the parcels, and a Phase I Environmental Site Assessment (ESA) to determine whether any hazardous materials or other contaminants are present of the parcels, and a Phase II ESA if necessary. These items may incur costs as high as \$500,000, which the Department requests be added to this measure.

Based on a cursory review of the parcels to be acquired, there are issues that need to be resolved prior to an acquisition. Parcel (1) 7-3-005:005 is not adjacent to the other parcels contemplated to be acquired in this measure, nor other state land. As there does not appear to be any public purpose for the State to acquire this parcel combined with the challenges to manage this standalone parcel, the Department recommends that this parcel be deleted from the measure. Parcel (1) 7-3-013:003 appears to support the ditch system so it should be acquired separately by either DOA or ADC. Additionally, several of the parcels appear to have improvements potentially encroaching from adjacent parcels, which will require resolution prior to acquisition.

Furthermore, the Department notes that the Wahiawa Dam does not meet current dam safety standards and needs significant repairs to bring it into compliance. These deficiencies were first identified in the 1978 United States Army Corps of Engineers dam safety report. The current landowner was notified by the Department's Dam Safety Program to remedy these issues in 2009 and has not taken the all the necessary actions to remediate the dam. Repairs needed to bring the dam into compliance are estimated to be up to \$21 million, but the Department cannot confirm that amount, so the funding provided in the measure may not be sufficient.². The Department supports the appropriation of funds to DOA to conduct the needed repairs. As the Department is acting in its regulatory capacity through its administration of the Dam Safety Program, DOA being outside of the Department's jurisdiction would avoid the appearance of a conflict of interest.

The Department agrees that this measure should require that either ADC or the DOA assume ownership of the irrigation system infrastructure needed for water delivery, such as the dam and spillway, not only the ditch system.³ Although the Wahiawa State Freshwater Park is adjacent to the subject parcels and the Department's Division of Aquatic Resources uses the reservoir for some of its programs serving about 500 fishers annually, supporting those programs is not sufficient justification for the Department solely acquiring and managing the entire irrigation system. The overwhelming public benefit of the system is to support agricultural activities and local food production. The irrigation system serves numerous agricultural users in the region. Those users engage in activities that support local food production, making the irrigation system a key component in achieving the State's food sustainability goals. Therefore, the system is the responsibility of the landowner and benefits agriculture.

Thank you for the opportunity to comment on this measure.

Page 2

² This estimate is speculative since there has been no confirmation as to whether the current repair plans are viable.

³ The Department does not have any agriculture tenants in the area, unlike ADC or the DOA. As such, if a state agency was to acquire the Reservoir, ADC or DOA ought to be considered candidates for such acquisition for their own tenants or uses.

DAVID Y. IGE GOVERNOR OF HAWAII





STATE OF HAWAII **DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

Testimony of **SUZANNE D. CASE** Chairperson

Before the House Committee on AGRICULTURE

Wednesday, March 16, 2022 10:00 AM State Capitol, Conference Room 325, Via Videoconference

In consideration of SENATE BILL 2480, SENATE DRAFT 2 RELATING TO THE WAHIAWA IRRIGATION SYSTEM

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While the Department appreciates that the measure provides \$1,500,000 to the Department to manage and maintain its portion of the irrigation system, including creating 4 full time equivalent (FTE) positions, the Department notes that there will be significant ongoing challenges to manage this area and that future recurring funding will be required. The Department already manages the approximately 66-acre Wahiawa State Freshwater Park adjacent to the subject parcels and estimates that it would be responsible for managing approximately 206.5 additional acres resulting from this acquisition. The Department understands that as many as 50 homeless people occupy various areas of the parcels and a commitment of substantial resources will be required to manage the area to provide clean, safe recreational opportunities to the public. In addition to addressing the homeless issue, the Department will need to manage the submerged land areas and approximately 20 miles of shoreline for public use by regularly removing trash, debris and other hazards, including aging Eucalyptus trees that abut the adjacent residential properties. Given the significant management responsibilities that will involve multiple divisions of the Department, 4 FTE positions may not be sufficient staff resources to adequately manage this area. Specifically, additional officers from the Department's Division of Conservation and Resources Enforcement will be required to respond to homeless and other enforcement issues.

SUZANNE D. CASE CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

> ROBERT K. MASUDA FIRST DEPUTY

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<u>SB-2480-SD-2</u> Submitted on: 3/15/2022 9:43:41 AM

Testimony for AGR on 3/16/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Carty Chang	DLNR	Comments	Remotely Via Zoom

Comments:

<u>SB-2480-SD-2</u> Submitted on: 3/15/2022 9:44:33 AM

Testimony for AGR on 3/16/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Edwin Matsuda	DLNR	Comments	Remotely Via Zoom

Comments:

<u>SB-2480-SD-2</u> Submitted on: 3/15/2022 9:46:33 AM

Testimony for AGR on 3/16/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ian Hirokawa	DLNR	Comments	Remotely Via Zoom

Comments:

<u>SB-2480-SD-2</u> Submitted on: 3/15/2022 9:45:23 AM

Testimony for AGR on 3/16/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Russell Tsuji	DLNR	Comments	Remotely Via Zoom

Comments:

SB-2480-SD-2

Submitted on: 3/16/2022 7:57:35 AM

Testimony for AGR on 3/16/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Tony Koyamatsu	DLNR	Comments	Remotely Via Zoom

Comments:

COMMITTEE ON AGRICULTURE

Rep. Mark J. Hashem, Chair Rep. Amy A. Perruso, Vice Chair

Wednesday, March 16, 2022 10:00 AM
Hawaii State Capitol
Conference Room 325
Via Videoconference In consideration of

SENATE BILL 2480, SD2 RELATING TO THE WAHIAWA IRRIGATION SYSTEM

Senate Bill 2480 proposes to authorize the issuance of bonds for the Department of Land and Natural Resources (Department) and Agribusiness Development Corporation (ADC) to purchase the Wahiawa irrigation system on the island of Oahu.

My name is Howard Green and I am the owner of Sustainable Hawaii LLC, property owner of parcels affected by SB 2480. I submit these comments for consideration.

Although this measure authorizes the Governor's office to negotiate with Dole Food Company, Sustainable Hawaii LLC was never contacted during the process. We own multiple parcels that will be affected by SB2480 including the Wahiawa Dam and the adjacent parcels. The fact that I was not contacted nor consulted during the negotiation process tells me that there are different standards for both the Dole Food Company and Sustainable Hawaii LLC.

It should be noted that the appraisal process in this case can be very difficult. There is land held under the leased parcels as well as improvements made to the Wahiawa Dam even though the Wahiawa Dam was built by and has always been operated by the Dole Food Company. The replacement value of a portion of the dam alone would be far more than \$5 million being allocated. Merely stating that whatever "appraisal" technique would be chosen would be highly subjective.

As I indicated, the Senate had not consulted with me or Sustainable Hawaii LLC regarding this bill and submit these important points that are omitted that could make the acquisition useless to the State, if not included:

- 1) Sustainable Hawaii LLC's property that is involved in the reservoir includes 146.38 acres. Under this proposed deal the State is authorized to acquire only the 30 acres on which the spillway and dam are located.
- 2) Also omitted is a parcel upstream of the dam on the North Kaukonahua side, which underly the reservoir and properties below the dam on which the irrigation ditch is

- routed. Without those parcels the State will not be able to fill the reservoir with water or route the irrigation water to the remainder of the system.
- 3) The one property identified as being purchased from my company Sustainable Hawaii, LLC, is identified as Tax Map Key 7-1-12-14. The actual Land Court designates the property as two parcels, 1-H-1-B-1, and 1-H-1-B-2 on Map 15, Land Court App 262. The Map shows that the south boundary of the property follows the middle of the river and thus "Boy Scout Island" is part of the parcel. The Tax Map is drawn incorrectly leaving out Boy Scout Island.
- 4) Attached is a map of all the Galbraith Estate Properties which includes all of the parcels under the Wahiawa Dam and Reservoir. This is the most accurate map of the parcels and also include the Land Court Parcel Numbers. However, the tax map key parcel numbers have changed in the years since this map was created and are updated in the included map (7-1-1-27, 7-1-1-13, 7-1-1-17, 7-1-12-04, 7-1-12-07, 7-1-12-03, and 7-1-7-22).



Email: communications@ulupono.com

HOUSE COMMITTEE ON AGRICULTURE Wednesday, March 16, 2022 — 10:00 a.m.

Ulupono Initiative supports SB 2480 SD 2, Relating to the Wahiawa Irrigation System.

Dear Chair Hashem and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food; renewable energy and clean transportation; and better management of freshwater and waste.

Ulupono <u>supports</u> SB 2480 SD 2, which authorizes the issuance of bonds for the Department of Agriculture (DOA) and the Agribusiness Development Corporation (ADC) to purchase the Wahiawa Irrigation System on the island of Oʻahu.

Ulupono supports funding for critical agricultural infrastructure across the State. The Wahiawa Irrigation System provides critical water access to local producers in the region. The system also provides recreation to the local community under the jurisdiction of the Department of Land and Natural Resources. It is prudent for the State to acquire the Wahiawa Irrigation System to support both recreation and production agriculture, therefore some sort of collaborative agreement across multiple state departments may be necessary. Having such an important system abandoned, or sold to a private entity, may have drastic ripple effects to local agriculture and communities alike. We support keeping this water resource within the purview of the State and maintaining affordable water access islandwide. It is important to note that there are other maintenance and repair projects proposed in the Hawai'i Department of Agriculture's CIP Budget that also merit strong consideration by the Legislature.

Ulupono closely tracked the federal Infrastructure Investment and Jobs Act and advocated for key strategic investments in water infrastructure for agriculture. Unfortunately, the federal bill did not provide resources specifically targeted to support agricultural water systems. Agricultural water system infrastructure (irrigation systems) is an essential component of our state's efforts to achieve its goals of increasing local food production and food security.

This is affirmed in the DOA's 2019 Agricultural Water Use and Development Plan (AWUDP), which documents how Hawai'i's agricultural industry relies on these water systems to deliver inexpensive water to meet and expand agricultural production even during times of drought. The DOA has identified agricultural water systems as the most important infrastructural requirement needed to expand Hawai'i's diversified agriculture industry. However, most of the large-scale irrigation systems in the state are or will soon be more than 100 years old.

Additionally, according to the Association of State Dam Safety Officials' latest Dam Safety Performance Report, more than a third of Hawai'i's dams are rated either in poor or unsatisfactory condition.



In the AWUDP, the DOA estimates the five-year cost of repairs and maintenance for Hawai'i's most critical agricultural water systems at approximately \$168 million - of that amount, about \$90 million is needed specifically for DOA-managed agricultural water systems over that same period. This is substantial for our small state, requiring an average of more than \$33 million per year for five years. While the price tag to repair and maintain these systems may seem high, the cost to replace these plantation-era water systems would be in the billions of dollars. More importantly, continuing to let these systems fall into disrepair puts Hawai'i's food security at risk, particularly the food security of the next generation who will be forced to adapt to a hotter and dryer planet.

Climate Change in Hawai'i

The importance of well-maintained agricultural water systems becomes even greater when the impacts of climate change on Hawaiʻi's food security are considered. In April 2021, Hawaiʻi became the first state to declare a climate emergency, when the State Legislature passed Senate Concurrent Resolution 44 SD1 HD1, which also requested "statewide collaboration toward an immediate just transition and emergency mobilization effort to restore a safe climate."

The people of Hawai'i are seeing first-hand local impacts consistent with the effects of climate change: rising air temperatures; decreased rainfall and stream flow; increased rain intensity; increased frequency of drought; and increased frequency of powerful storms. For example:

- Since 1950, temperatures across the Hawaiian Islands have been on the rise, ranging from increases of 0.2 to 0.4 degrees Fahrenheit per decade;
- The annual total precipitation measured at Hilo International Airport decreased by nearly 20 inches since 1950—the most among Hawai'i's four major airports;
- Rain intensity is becoming as much a destructive factor as drought, with the amount of rain falling in the very heaviest downpours from 1958 to 2007 increasing by approximately 12%;
- The area in Hawai'i burned annually by wildfires has increased four-fold in recent decades, according to University of Hawai'i wildland fire researcher Clay Trauernicht; and
- Powerful storms are anticipated to become more frequent, as warmer climates tend to amplify
 existing weather patterns and variability, according to Hawai'i's state climatologist, Pao-Shin
 Chu.

These are each detrimental to local food production on their own; and yet, as an isolated island state we are also susceptible to climate change impacts far from our shores due to Hawai'i's continuing overreliance on food from imports.

Food Pricing & Availability in Hawai'i

For international and domestic food producers, meeting the global demand of a projected 10 billion people by 2050—an increase of 2.3 billion people over just a quarter of a century—will become increasingly challenging as the Earth's climate continues to warm. Some estimate this will require an increase in global food production of 60%, if we are to ensure enough food for all.

According to research by The Nature Conservancy, climate change will bring increased moisture deficits across the United States. Nationally, the total area irrigated will need to increase by 11-54 million acres (an increase of 19-94%) by 2090 in order to maintain food production.

An analysis of top food producing states California and Iowa paints a grim picture:

• California, based on available data, produces over a third of the nation's vegetables and twothirds of its fruits and nuts. Yet, California is expected to see a 50% increase in the number of severe droughts by the end of this century, with research predicting a decrease in California's



- yields by more than 10% for walnuts, almonds, avocados, table grapes, rice, wheat, and tomatoes.
- Iowa is the largest producer of corn in the United States, with Iowa farms producing more than 19% of American corn, eggs (14%), hogs (30%), and soybeans (17%) in 2008. Iowa could see up to a 25% drop in corn yields by mid-century (from 200 to 150 bushels per acre), according to the Fourth National Climate Assessment, a federal study mandated by Congress and completed every four years, significant decreases are on the horizon.

Left dependent on imports, Hawai'i residents will experience greater volatility of food prices and food availability because of the impact of climate change on national and global food production. It can no longer be assumed that there will always be an unlimited supply of affordable food from overseas to feed Hawai'i's population.

<u>Irrigation Infrastructure IS Part of Climate Change Adaptation</u>

In the Biden Administration's fact sheet outlining the Infrastructure Investment and Jobs Act, the White House highlighted investments in **infrastructure to make communities more resilient to the impacts of climate change, including** "funds to protect against droughts and floods..."

Irrigation plays an essential role in increasing food production and is an effective method of climate change adaptation. Globally, irrigated land represents only 16% of arable land, but produces 44% of total crop production. For most crops, irrigation can double or triple crop yields. For example, irrigated crop yields for corn, soybean, and wheat are 165%, 75%, and 140% higher than rain-fed yields. In regards to climate change adaptation, irrigation systems mitigate the impact of decreasing rainfall, increasing frequency of drought, and increasing temperatures; and irrigation can help capture more rainfall during storm events, so that water can be used in the future.

The DOA's AWUDP plan concludes: "The investment into these agricultural water systems is the key to provide adequate water to continue to grow diversified agriculture. As the saying goes, ...without water there is no agriculture..., which is the reason these agricultural water systems were originally constructed—and why they need to be maintained for another 100 years."

We strongly agree. For generations to come, local food production will depend on these systems and their ability to provide water for local farmers and ranchers. This represents a singular opportunity to make Hawai'i more self-sufficient and resilient.

Thank you for this opportunity to testify.

Respectfully,

Micah Munekata Director of Government Affairs



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March 16, 2022

HEARING BEFORE THE HOUSE COMMITTEE ON AGRICULTURE

TESTIMONY ON SB 2480, SD2 RELATING TO THE WAHIAWA IRRIGATION SYSTEM

Room 325 & Videoconference 10:00 AM

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports SB 2480, SD2, which requires the Office of the Governor to negotiate the State's fee simple acquisition of the Wahiawa Irrigation System on the island of Oahu and authorizes and appropriates moneys for the Department of Agriculture, Agribusiness Development Corporation, and Department of Land and Natural Resources to purchase, repair, and maintain the Wahiawa Irrigation System and an associated spillway.

The Wahiawa Irrigation System is critical for Oahu farmers and ranchers that depend on it for their operations. Water availability is a basic necessity for farmers and ranchers to maintain and expand their production, particularly in times of drought manifested on many islands as a result of a changing climate. Moreover, a reliable water supply is a key factor when Hawai'i's farmers and ranchers are making decisions to start new or to expand existing operations.

The Dole Food Company has listed the Wahiawa Irrigation System for sale. We can't afford to lose this critical agricultural water source. No farming entity can afford the \$20,000,000 listed price. We are concerned about the potential impact on farmers if a private individual or entity purchases the system. They may raise water rates or even discontinue supplying water to farmers.

Oahu growers, especially those in Waialua and Haleiwa, need the reliable source of water that the Wahiawa Irrigation System provides, to continue to produce cabbage, bell pepper, tomato, cucumber, taro, eggplant, okra, papaya, citrus, avocado, banana, dragon fruit, watermelon, and green onion, and to expand production to better serve our communities.

Thank you for this opportunity to testify in support of this measure.



HAWAII CROP IMPROVEMENT ASSOCIATION

In Support of SB2480 SD2 Relating to the Wahiawa Irrigation System

House Committee on Agriculture

Date: Wednesday, March 16, 2022

Time: 10:00 a.m.

Place: Videoconference

Chair Hashem, Vice Chair Perruso, and members of the committee:

Thank you for allowing the Hawaii Crop Improvement Association the opportunity to provide testimony in **support** of SB2480 SD2, which requires the Office of the Governor to negotiate the State's fee simple acquisition of the Wahiawa Irrigation System on the island of Oahu, and authorizes and appropriates moneys for the Department of Agriculture, Agribusiness Development Corporation, and Department of Land and Natural Resources to purchase, repair, and maintain the Wahiawa Irrigation System and an associated spillway.

The Wahiawa Irrigation System is a valuable system that services prime and productive agricultural lands. It is an essential water source for farmers in Waialua and Haleiwa. This measure will ensure that it will continue to operate for the benefit of the public.

Mahalo for this opportunity to testify in support of SB2480 SD2. If you have any questions, please contact me at your convenience.

Sincerely,

Pono Chong

Hawaii Crop Improvement Association

The Hawaii Crop Improvement Association is a Hawaii-based non-profit organization that promotes modern agriculture to help farmers and communities succeed. Through education, collaboration, and advocacy, we work to ensure a safe and sustainable food supply, support responsible farming practices, and build a healthy economy.



Hawaii House of Representatives Committee on Agriculture Representative Mark J. Hashem, Chair Representative Amy A. Perruso, Vice Chair March 14, 2022

I am the General Manager of Dole Food Company Hawaii, a division of Dole Food Company, Inc. I am submitting testimony in support of Senate Bill 2480 SD2 which has passed from the Senate to the House of Representatives and is scheduled to be heard by your HR Committee on Agriculture on March 16,2022. This bill proposes that the State of Hawaii fund the purchase of the Wahiawa Irrigation System (WIS) from Dole Food Company for an estimated \$20M. Dole and Castle & Cooke met with Governor Ige and some of his cabinet to discuss this possibility on Wednesday, Feb. 9. Some changes in the bill occurred before it passed the Senate regarding the source of funding and the ownership and operational responsibilities of the State agencies that will manage the Wahiawa Irrigation System (WIS). Dole supports the changes that are in the version passed by the Senate.

The WIS is essential to continued agricultural production in Central and North Oahu. Dole is facing mandated spillway design expansion at Wahiawa Reservoir Dam that may cost as high as \$20M. This would essentially put Dole Hawaii out of business. If Dole cannot afford the expansion, then the system may have to be decommissioned with the breach of Wahiawa Dam. This would mean the loss of the flood control and recreational assets that the State and the community now enjoy and the loss of irrigation water for a major portion of agricultural production on Oahu. Dole set an asking price to reflect the cost of the spillway expansion and other improvements and could negotiate with the State to discount the price based on the State taking on the cost of the expansion. Dole is prepared to gift the system for no cost in exchange for delivery of a maximum 6 MGD of irrigation water at no cost. Dole will only draw what is needed each day. The system currently delivers about 4 MGD to other users for a total of 10MGD on average. Currently the maximum daily outflow is 20 MGD. This can be increased with future improvements. The reservoir holds 3 billion gallons, water is abundant for future use opportunities. To fund the cost to expand the spillway the State will be able to access federal infrastructure funds that a private owner cannot access. This system currently serves fifty farmers with over 500 farm jobs and will serve more in the future once the State of Hawaii Agribusiness Corporation lands are fully leased out in Central and North Oahu. For food security it is essential that Hawaii expands agricultural production, and this is an opportunity for the State to do just that.

In addition to the current uses of this system the future uses could include hydroelectricity to meet State of Hawaii renewable energy goals and possibly power a water purification system that can provide potable water security to the island of Oahu as our aquifers face threats from contamination and saltwater intrusion from over pumping.

WIS is a historically important asset for Oahu and the State of Hawaii and this opportunity for the State to own, manage, and improve the system is critical to agriculture, flood control, energy security, and water security. I urge you to pass this bill and capitalize on this opportunity.

Thank you for your consideration.

General Manager

Aloha,

Dole Food Company Hawaii

SB-2480-SD-2

Submitted on: 3/15/2022 3:18:33 PM

Testimony for AGR on 3/16/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Andrea Quinn	Individual	Support	Written Testimony Only

Comments:

Dear Honorable Committee Members:

Please support SB2480.

Thank you for the opportunity to present my testimony.

Andrea Quinn

Kihei, Maui